

Appl. No. 10/645,679  
Reply to Office action of 09/29/2004

### **REMARKS**

Reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 1-13 and 27 are pending in this case. Claims 14-26 are cancelled herein. Claim 27 stands allowed.

The Title is amended as suggested by the Examiner.

The Examiner rejected claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Background of Invention (BOI) in view of Schenck (U.S. Patent 4,317,041).

Applicant respectfully submits that claim 1 is patentable over the BOI in view of Schenck as there is no disclosure or suggestion in the references of a semiconductor processing module comprising a housing adapted to enclose a semiconductor wafer, an ultraviolet radiation source disposed within the housing, and a treatment medium disposed within the housing. While the BOI discusses processing apparatus such as sputter systems and ECD systems, it does not teach a UV source within the housing or a treatment medium within the housing, as noted by the Examiner. Schenck teaches a water (or other fluid) purification system that employs UV radiation and, optionally, ozone. There is no disclosure or suggestion for applying the water purification system of Schenck to a semiconductor processing module. Accordingly, it would not be obvious for one of ordinary skill in the art to apply the water purification teachings of Schenck to the processing apparatus of the BOI to accomplish the invention.

The Examiner argues that it would be obvious because "both are related to the same subject matter of applying an UV and a treatment medium disposed within the housing in an apparatus to remediate seed layer surface during fabricating a

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semiconductor device." However, this is incorrect. The two references are not related to the same subject matter. The BOI is related to semiconductor fabrication and Schenck is related to a fluid (water) purification system. Furthermore, the BOI is not related to applying a UV, much less one disposed within the housing or used to remediate a seed layer and Schenck is not related to fabricating a semiconductor device or remediating a seed layer. The two references are not directed to related fields and there is no suggestion to combine the references as suggested by the Examiner. While Schenck teaches applying UV to purify a fluid, there is no suggestion for disposing such a UV source in a housing adapted for a semiconductor wafer. Accordingly, Applicant respectfully submits that claim 1 and the claims dependent thereon are patentable over the BOI in view of Schenck.

Applicant respectfully submits that claims 9-13 are further patentable over the BOI in view of Schenck as there is no disclosure or suggestion of a medium conditioning system disposed within the housing. This element is not taught in the BOI. While Schenck mentions that an oxidizing agent, such as ozone, may be introduced (and the medium of the claimed invention may comprise ozone), there is no disclosure or suggestion of a medium (ozone) conditioning system, much less one disposed within the housing. There is no discussion in Schenck of how the ozone is introduced nor is there any mention of any conditioning of the ozone. There is no discussion in Schenck of a medium conditioning system adapted to induce a vacuum (claim 10), or a medium conditioning system comprising a filtration system (claim 11). Accordingly, Applicant respectfully submits that claims 9, 10, 11, and the claims dependent thereon are further patentable over the references.

The other references cited by the Examiner have been reviewed, but are not felt to come within the scope of the claims as amended.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1-13 and 27. If the Examiner has any questions or

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other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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